STONE TOOLS AND THE AMERICAN BOTTOM

Four sites have recently been excavated in the American Bottom region of the Mississippi River. This area is one of the most fertile in the United States and has been occupied for many millennia. More information on this area is provided in Chapter 3 on the FAI-270 Project.

Prior research in the American Bottom and neighboring regions has established a number of facts that will help you answer the following questions.

1. During the Archaic period, people made large spear points, while during the Mississippian period people produced smaller points due to the introduction of the bow and arrow.
2. Experimentation and microwear analysis of edge damage of many tools has helped archaeologists determine production stages and assign general functions to a number of categories.
3. Study of the "hoes" has identified a distinct sheen due to being repeatedly forced into the ground. Hoe flakes were removed from the hoe but still retain the distinctive sheen.
4. We also know that two particular types of stone found at some of these sites come from different parts of the United States. The obsidian comes from the southwestern United States and the novaculite (a hard stone suitable for flaking) comes from southern Illinois.
5. Artifact categories such as chunks, cores, and cortical flakes are the result of the initial stages of stone tool production, where raw materials are converted to more usable pieces. Chunks are broken, but unworked pieces of raw material. Cortical flakes are pieces with some of the outer cortex or rind of the nodule present on the distal surface. Unused flakes and blades can be waste material or potential tools.

Table 10.2 shows summary counts of various chipped stone products at the four sites.

TABLE 10.2

	Crescent Hills	Dupo	Troy	Alton
Chunks	75	3	0	0
Cores	45	10	1	1
Cortical flakes	89	16	1	2
Used flakes	5	45	51	20
Unused flakes	97	30	12	4
Used blades	1	11	15	4
Unused blades	0	10	0	1
Small points	1	12	20	0
Large points	2	0	0	12
Hoe flakes	0	6	7	0
Total	315	143	107	44
Local chert	315	129	79	33
Novaculite	0	13	3	11
Obsidian	0	1	15	7

As a lithic analyst, you are asked to investigate the following issues:

1. The level of stone tool production at the site (either production or utilization).
2. The function of the tools and therefore the subsistence and economic orientation of each site.
3. The potential connections between each site and nearby regions.
4. The time period of each site (i.e., Archaic or Mississippian).

Based on the above data and background information, answer the following questions. Remember that archaeological data do not always support definitive conclusions, so simply present your best estimate. Your answers should be brief and to the point; most questions require only the name of the site for an answer. If you feel you need to justify your answer, use no more than two sentences.

1. Stone tool production

   What stages of tool manufacture and use seem to have been most prevalent at various sites? Identify the site(s) at which

   a. people were extracting raw material, shaping nodules into cores, but not using many tools at the site;

   b. people on the site seem to have been both making and using stone tools; and

   c. people were mainly using tools with very little evidence of production.

2. General site function (determined from the tool assemblages)

   Which site best matches each of the descriptions below? Consider both the numbers of artifacts and the kinds of tools present.

   a. Temporary hunting camp.

   b. Agricultural settlement with evidence for hunting.

   c. Station for preliminary flintknapping stages, probably close to a raw material source.

3. Inter-regional comparison

   Some of the artifacts at the above sites show links with other regions. Which sites have affiliations with neighboring regions to the

   a. southwest _____

   b. east _____

   c. both _____

4. Time period

   Some of these artifacts also indicate a temporal association with either the Archaic or Mississippian period. Which of the sites appears to be

   a. Mississippian.

   b. Archaic.

   c. Which site is difficult to place within one of these temporal phases and why?